



**CALIFORNIA WATER QUALITY MONITORING COUNCIL  
RESOLUTION NO. 2021-0001**

**WASTEWATER-BASED SURVEILLANCE OF COVID-19**

**WHEREAS:**

1. The World Health Organization declared COVID-19 a world health emergency in January 2020, followed shortly thereafter by the United States declaring a public health emergency.
2. Public health officials need accurate and timely information on the spread, movement, and control of the COVID-19 virus.
3. California's research and wastewater utilities quickly demonstrated international leadership in advancing a new approach to prevalence assessment: Wastewater-based epidemiology (WBE) to quantify trends in COVID-19. WBE complements clinical testing and can detect the virus shed by both symptomatic and asymptomatic individuals. WBE also yields information several days and almost two weeks sooner than it takes to collate individual testing and hospitalization records, respectively.
4. California's utilities undertook these efforts at their own expense, partnering with research institutions such as Stanford University, the University of California (UC) at Berkeley, UC Davis, UC San Diego, University of Arizona, Loma Linda University, University of Southern California, the Water Research Foundation, and the Southern California Coastal Water Research Project Authority to implement those efforts. Several utilities initiated these efforts as early as March 2020, with continual participation for the last 18 months. Those early efforts established sampling and analysis protocols subsequently adopted by others and demonstrated to the world that WBE is a valuable tool to inform COVID-19 public health response.
5. The US Department of Health and Human Services subsequently partnered with utilities in two phases of pilot studies to study the logistics of implementing WBE nationally. Eleven California utilities participated in Phase 1 and 25 utilities participated in Phase 2.
6. The California Department of Public Health and the State Water Resources Control Board entered into a formal partnership with the Centers for Disease Control and Prevention in December 2020 in a comprehensive program to further develop the WBE approach. Five California utilities participated in that program, again at their own expense, voluntarily collecting wastewater samples three times a week, analyzing samples according to protocol, submitting data to the Center for Disease Control's National Wastewater Surveillance System (NWSS), and participating in monthly California NWSS Workgroup coordination meetings for the state's pilot wastewater surveillance program. Originally a six-month project, these five utilities continue to participate in the program and make their data available to the public.
7. The California Water Quality Monitoring Council (Council) was formed by CA Senate Bill 1070 (Kehoe, 2006) and is mandated under California Water Code Section 13181 to enhance the effectiveness of California's water quality monitoring systems, with Council

members appointed by the Secretaries of CalEPA and Department of Natural Resources. The Council worked with utilities to help enhance the sampling and analysis protocols for WBE and was impressed by the commitment of California's wastewater utility community to help inform management of this public health crisis.

NOW THEREFORE BE IT RESOLVED THAT:

The California Water Quality Monitoring Council (Council) formally recognizes and extends its profound appreciation for the efforts of the utilities below to develop and implement wastewater monitoring that informs responses to the COVID-19 pandemic and protects the health of Californians.

Utilities that were early trendsetters in implementing wastewater-based epidemiology prior to the formal development of State and Federal programs and who have maintained sampling for more than a year:

- East Bay Municipal Utilities District
- Orange County Sanitation District
- Los Angeles County Sanitation Districts
- Los Angeles City Sanitation and Environment
- City of San Diego Public Utilities
- San Francisco Public Utilities Commission
- City of Gilroy
- City of Davis
- Silicon Valley Clean Water
- City of Palo Alto Regional Water Quality Control Plant
- San Jose-Santa Clara Regional Wastewater Facility
- Sacramento Regional County Sanitation District
- City of Sunnyvale
- City of San Bernardino Water Reclamation Facility
- Sanitary District No.5 of Marin County
- Central Marin Sanitation Agency
- Las Gallinas Valley Sanitary District
- Sausalito-Marín City Sanitary District
- Sewerage Agency of Southern Marin
- Novato Sanitary District
- Central Contra Costa Sanitary District
- Delta Diablo Sanitary District
- West County Water District
- City of Yountville
- City of American Canyon
- Union Sanitary District
- City of Vacaville
- Lake County Sanitation District
- South Orange County Wastewater Authority
- Oro Loma Sanitary District
- Las Virgenes Municipal Water District

- Mariposa Public Utility District

Utilities that participated in the Center for Disease Control's National Wastewater Surveillance System program in cooperation with the State Water Quality Control Boards:

- Los Angeles County Sanitation Districts
- Los Angeles Sanitation and Environment
- City of San Diego Public Utilities
- Orange County Sanitation District
- San Francisco Public Utilities Commission

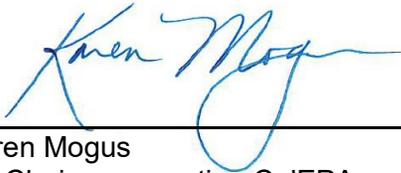
Utilities that participated in the US Health and Human Services national monitoring pilot program:

- East Bay Municipal Utilities District
- Orange County Sanitation District
- Los Angeles County Sanitation Districts
- Los Angeles City Sanitation and Environment
- City of San Diego Public Utilities
- San Francisco Public Utilities Commission
- Sacramento Regional Wastewater Treatment Plant
- Central Contra Costa Sanitary District
- Encina Water Pollution Control Facility
- Oxnard Wastewater Treatment Plant
- Silicon Valley Clean Water
- City of San Mateo Wastewater Treatment Plant
- Laguna Niguel Regional Treatment Plant
- City of San Luis Obispo Water Resource Recovery Facility
- Delta Diablo
- Las Virgenes Municipal Water District
- Carmel Area Wastewater District
- City of Eureka
- City of Fresno
- Valley Sanitary District
- City of Lincoln Wastewater Plant
- City of Lompoc WWTP
- City of Oxnard
- City of Paso Robles
- City of Redlands
- San Elijo JPA
- City of Santa Barbara
- City of Santa Cruz
- City of Santa Rosa
- City of Watsonville WWTF
- City of San Bernardino Municipal Water Department
- Sewer Authority Mid-Coastside

CERTIFICATION:

The undersigned Co-Chairs of the Council do hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the California Water Quality Monitoring Council held on November 10, 2021.

AYE: Co-Chair Karen Mogus  
Co-Chair (alternate) Chad Dibble  
Council Member Grant Sharp  
Council Member (alternate) Mark Cady  
Council Member Helen Fitandes  
Council Member Ray Heimstra  
Council Member Steve Weisberg  
NAY: None  
ABSENT: Drinking Water Council Member  
Regulated Community – POTWs Council Member  
ABSTAIN: Council Member Peter Vroom



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Karen Mogus  
Co-Chair representing CalEPA



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Mark Gold  
Co-Chair representing CNRA